IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A relay device, comprising:

a first interface unit connected to a first network <u>operated by a first protocol</u>;

a second interface unit connected to a second network <u>operated by a second protocol that is different from the first protocol</u>;

a proxy configuration unit for disclosing a device/service/sub-unit on the second network as an own device/service/sub-unit provided on the relay device with respect to a first network side;

a control command reception unit for receiving control command signals destined to the own device/service/sub-unit from the first network side;

a control command transmission unit for transmitting signals corresponding to the control command signals received by the control command reception unit, to the device/service/sub-unit on the second network;

a contents protection information reception unit for receiving contents protection information destined to the own device/service/sub-unit, from a device on the first network; and

a contents protection information transfer unit for transferring the contents protection information received by the contents protection information reception unit to the device/service/sub-unit on the second network, without making any change in the contents protection information;

<u>wherein the contents protection information is information necessary in carrying out a contents protection procedure including at least an authentication and/or a key exchange between one device/service/sub-unit on the first network and another device/service/sub-unit on the second network</u>.

Claim 2 (Currently Amended): A relay device, comprising:

a first interface unit connected to a first network <u>operated by a first protocol</u>;

a second interface unit connected to a second network <u>operated by a second protocol that is different from the first protocol</u>;

a proxy configuration unit for disclosing each device/service/sub-unit on the first network or the second network as an own device/service/sub-unit provided on the relay device with respect to respective another network side;

a control command reception unit for receiving control command signals destined to the own device/service/sub-unit from a side of one network to which the own device/service/sub-unit is disclosed by the proxy configuration unit;

a control command transmission unit for transmitting signals corresponding to the control command signals received by the control command reception unit, to said each device/service/sub-unit on another network different from said one network;

a contents protection information reception unit for receiving contents protection information destined to the own device/service/sub-unit from a device on the first network or the second network;

a contents protection information transfer unit for transferring the contents protection information received by the contents protection information reception unit to said each device/service/sub-unit on said another network, without making any change in the contents protection information;

a contents reception unit for receiving contents destined to the own device/service/sub-unit and protected by a contents key obtained from the contents protection information, from a device on the first network or the second network; and

a contents transfer unit for transferring the contents received by the contents reception

unit to said each device/service/sub-unit on said another network, without making any change

in the contents;

wherein the contents protection information is information necessary in carrying out a

contents protection procedure including at least an authentication and/or a key exchange

between one device/service/sub-unit on the first network and another device/service/sub-unit

on the second network.

Claim 3 (Canceled).

Claim 4 (Original): The relay device of claim 2, further comprising:

a configuration information reception unit for receiving a configuration information

from one device/service/sub-unit on the first network or the second network, the

configuration information indicating at least a presence or absence of an authentication

format for said one device/service/sub-unit; and

a configuration recognition unit for recognizing a configuration of said one

device/service/sub-unit according to the configuration information received by the

configuration information reception unit.

Claim 5 (Currently Amended): A relay device, comprising:

a first interface unit connected to a first network operated by a first protocol;

a second interface unit connected to a second network operated by a second protocol

that is different from the first protocol;

a proxy configuration unit for disclosing each device/service/sub-unit on the first network or the second network as an own device/service/sub-unit provided on the relay device with respect to respective another network side;

a control command reception unit for receiving control command signals destined to the own device/service/sub-unit from a side of one network to which the own device/service/sub-unit is disclosed by the proxy configuration unit;

a control command transmission unit for transmitting signals corresponding to the control command signals received by the control command reception unit, to said each device/service/sub-unit on another network different from said one network;

a first contents protection unit for carrying out a contents protection procedure including at least an authentication and/or a key exchange, with respect to one device/service/sub-unit on the first network;

a second contents protection unit for carrying out the contents protection procedure including at least the authentication and/or the key exchange, with respect to another device/service/sub-unit on the second network;

a contents reception unit for receiving contents destined to the own device/service/sub-unit and encrypted according to one of the first and second contents protection units; and

a contents transfer unit for transferring the contents received by the contents reception unit to said each device/service/sub-unit on said another network, by encrypting the contents according to another one of the first and second contents protection units.

Claim 6 (Previously Presented): The relay device of claim 5, wherein the first contents protection unit and the second contents protection unit use different encryption schemes or identical encryption schemes based on different keys.

Claim 7 (Original): The relay device of claim 5, wherein the contents reception unit and the contents transmission unit are sealed within a single LSI.

Claim 8 (Original): The relay device of claim 5, wherein a first key information used in the contents protection procedure in the first contents protection unit and a second key information used in the contents protection procedure in the second contents protection unit are set to be identical.

Claim 9 (Original): The relay device of claim 8, wherein the contents protection procedure in said another one of the first and second contents protection units is carried out in units of contents/services/sub-units, using a prescribed key information.

Claim 10 (Original): The relay device of claim 5, further comprising:

a configuration information reception unit for receiving a configuration information from one device/service/sub-unit on the first network or the second network, the configuration information indicating at least a presence or absence of an authentication format for said one device/service/sub-unit; and

a configuration recognition unit for recognizing a configuration of said one device/service/sub-unit according to the configuration information received by the configuration information reception unit.

Claim 11 (Currently Amended): A relay device, comprising:

a first interface unit connected to a first network <u>operated by a first protocol</u>;

a second interface unit connected to a second network <u>operated by a second protocol</u>

<u>that is different from the first protocol</u>;

a first contents protection unit for carrying out a contents protection procedure

<u>including at least an authentication and/or a key exchange,</u> with respect to one

device/service/sub-unit on the first network;

a second contents protection unit for carrying out the contents protection procedure

<u>including at least the authentication and/or the key exchange,</u> with respect to another

device/service/sub-unit on the second network;

a contents reception unit for receiving contents destined to an own device/service/sub-

unit on the relay device and encrypted according to one of the first and second contents

protection units, from a device on one of the first network and the second network; and

a contents transmission unit for transmitting the contents received by the contents

reception unit to a device/service/sub-unit on another one of the first network and the second

network, by encrypting the contents according to another one of the first and second contents

protection units;

wherein a first key information used in the contents protection procedure in the first

contents protection unit and a second key information used in the contents protection

procedure in the second contents protection unit are set to be identical.

Claim 12 (Original): A communication device, comprising:

an interface unit connected to a network;

a copy protection processing unit for carrying out a prescribed contents protection

procedure including at least an authentication procedure and/or a key exchange procedure,

with respect to another device/service/sub-unit on the network;

a contents transmission unit for transmitting encrypted contents to which an address of the communication device is attached, either through a virtual channel on the network or by further attaching an identifier by which the encrypted contents can be uniquely identified by the communication device, to another device on the network;

a reception unit for receiving a query regarding a service/sub-unit/plug that is transferring the encrypted contents either through the virtual channel or by attaching the identifier, from said another device on the network; and

a notification unit for notifying a service/sub-unit/plug that is transferring the encrypted contents, to said another device on the network in response to the query.

Claim 13 (Original): A communication device, comprising:

an interface unit connected to a network;

a copy protection processing unit for carrying out a prescribed contents protection procedure including at least an authentication procedure and/or a key exchange procedure, with respect to another device/service/sub-unit on the network;

a contents reception unit for receiving encrypted contents to which an address of another device on the network is attached, either through a virtual channel on the network or in a form having an identifier by which the encrypted contents can be uniquely identified by said another device further attached thereto, from said another device;

a transmission unit for transmitting a query regarding a service/sub-unit/plug that is transferring the encrypted contents either through the virtual channel or by attaching the identifier, to said another device on the network; and

a reception unit for receiving a notification regarding a service/sub-unit/plug that is transferring the encrypted contents, from said another device in response to the query.

Claim 14 (Original): A communication device, comprising:

an interface unit connected to a network;

a contents transfer unit for transmitting or receiving encrypted contents with respect to another device on the network, through a flow identified by a set of a source address, a source port, a destination address, and a destination port; and

a copy protection processing unit for carrying out a prescribed contents protection procedure including at least an authentication procedure and/or a key exchange procedure with respect to said another device, using a prescribed logical port, in units of the flow.

Claim 15 (Original): The communication device of claim 14, wherein an identifier of the flow is attached to information exchanged in at least a part of procedures included in the prescribed contents protection procedure.

Claim 16 (Original): A communication device, comprising:

an interface unit connected to a network;

a copy protection processing unit for carrying out a prescribed contents protection procedure including at least an authentication procedure and/or a key exchange procedure, with respect to another device on the network; and

a contents transmission and reception unit for transmitting or receiving encrypted contents to which an address of a transmitting side device is attached, either through a virtual channel on the network or in a form having an identifier by which the encrypted contents can be uniquely identified by said transmitting side device further attached thereto, with respect to said another device;

wherein at least one of an identifier of a service, a sub-unit, a virtual channel, or a plug that carries out exchange of the encrypted contents, and an identifier by which the

encrypted contents can be uniquely identified by said transmitting side device, is attached to information exchanged in at least a part of procedures included in the prescribed contents protection procedure.

Claim 17 (Currently Amended): A relay device, comprising:

a first interface unit connected to a first network <u>operated by a first protocol</u>;

a second interface unit connected to a second network <u>operated by a second protocol that is different from the first protocol</u>;

a first copy protection processing unit for carrying out a prescribed contents protection procedure including at least an authentication procedure and a key exchange procedure, with respect to one device/service/sub-unit on the first network;

a second copy protection processing unit for carrying out the prescribed contents protection procedure including at least ~~an~~ <u>the</u> authentication procedure and ~~a~~ <u>the</u> key exchange procedure, with respect to another device/service/sub-unit on the second network;

a contents reception unit for receiving encrypted data containing specific contents from the first interface unit;

a decryption unit for decrypting the encrypted data receiving by the contents reception unit, by using a contents protection key provided by the first copy protection processing unit, to obtain decrypted data;

a conversion unit for converting the decrypted data into converted data in another coding format;

an encryption unit for encrypting the converted data, by using a contents protection key provided by the second copy protection processing unit, to obtain re-encrypted data; and

a contents transmission unit for transferring the re-encrypted data to the second interface unit.

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Claim 18 (Original): The relay device of claim 17, further comprising:

a proxy configuration unit for disclosing one device/service/sub-unit on the second network as one own device/service/sub-unit provided on the relay device with respect to a first network side, and transmitting to said one device/service/sub-unit on the second network an information having a content according to information destined to said one own device/service/sub-unit that is received from a device on the first network side, while also disclosing another device/service/sub-unit on the first network as another own device/service/sub-unit provided on the relay device with respect to a second network side, and transmitting to said another device/service/sub-unit on the first network an information having a content according to information destined to said another own device/service/sub-unit that is received from a device on the second network side;

wherein when the prescribed contents protection procedure between a device on one network among the first and second networks and a device/service/sub-unit on another network among the first and second networks is to be carried out, the proxy configuration unit carries out the prescribed contents protection procedure with the device on said one network by using one of the first and second copy protection processing units, while carrying out the prescribed contents protection procedure with the device/service/sub-unit on said another network by using another one of the first and second copy protection processing units.

Claim 19 (Currently Amended): A relay device, comprising:

a first interface unit connected to a first network operated by a first protocol;

a second interface unit connected to a second network operated by a second protocol that is different from the first protocol;

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a first contents protection unit for carrying out a contents protection procedure including at least an authentication procedure and a key exchange procedure, with respect to one device/service/sub-unit on the first network;

a second contents protection unit for carrying out the contents protection procedure including at least the authentication procedure and the key exchange procedure, with respect to another device/service/sub-unit on the second network;

a contents reception unit for receiving contents destined to an own device/service/sub-unit on the relay device and encrypted according to one of the first and second contents protection units, from a device on one of the first network and the second networks; and

a contents transmission unit for transmitting the contents received by the contents reception unit to a device/service/sub-unit on another one of the first network and the second network, by encrypting the contents according to another one of the first and second contents protection units;

wherein said one of the first and second contents protection units carries out an the authentication and/or a the key exchange with a device/service/sub-unit on said one of the first network and the second network by referring to a relationship between the contents reception unit and the contents transmission unit, when there is a request for a procedure of the authentication and/or the key exchange with respect to said another one of the first and second contents protection units.